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THE EXCRETION OF DDT (2,2-BIS-(P-CHLOROPHENYL)-1,1,1-TRICHLOROETHANE) IN MAN, TOGETHER WITH CLINICAL OBSERVATIONS¹

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It was shown by White and Sweeney (1) that following oral administration of DDT in olive oil to rabbits DDT was partly excreted with the urine as di-(p-chlorophenyl)-acetic acid (DDA). So far there is no evidence that the same holds true for humans. Because of the clinical and forensic importance of this question for the detection of DDT poisoning, the excretion of DDT was studied in one human subject and at the same time a clinical study was made to detect any possible toxic symptoms.

CLINICAL OBSERVATIONS

A normal male human subject volunteered for this experiment. The same person had been exposed in July 1943 to a calculated concentration of 1 mg. of DDT per 1,000 cu. ft. for 1 hour daily on 6 consecutive days, and, 4 weeks later, to an even higher concentration for 1 hour daily on 5 consecutive days without any untoward effects (Neal et al. (2)). In addition the same subject had ingested 500 mg. of DDT in olive oil in December 1944 without experiencing any signs of toxic effects. In September 1945, after a foreperiod of 2 weeks, during which time the urine was examined daily and the blood was examined twice, the same individual underwent a detailed clinical examination including a teleoroentgenogram, an electrocardiogram, an electroencephalogram, one liver function test, and one blood sugar determination. Special emphasis was placed on nervous functions as indicated by reflex excitability and coordination tests. Following this examination the subject took 11 mg. per kg. of body weight

¹ From the Industrial Hygiene Research Laboratory, National Institute of Health:

(a total of 770 mg.) of pure recrystallized DDT in approximately 25 cc. of olive oil into an empty stomach, and the examination was repeated 48 hours later.

The subject noted no subjective signs or symptoms following the ingestion of this dose, and no deviations from the pre-examination findings were found on the second examination. Specifically, the neurological examination covering coordination tests (finger-nose, finger-finger, and heel-knee) and sensory test showed normal reactions. There was no evidence of muscular fibrillation, tremors, or twitchings; the position sense, figure-writing test, and two-point and sharp-dull discrimination tests showed no abnormalities. The reflexes (biceps, triceps, ankle, knee, corneal, cremasteric, abdominal, Babinski, and Kernig) were unchanged, nor did the electroencephalogram taken 2 hours after the ingestion of DDT show any deviations from that made prior to the ingestion of DDT.

As illustrated in table 1, the daily examination of the urine 2 weeks prior to, and 2 weeks after, the ingestion of DDT showed nothing

TABLE 1.—The urinary findings of a human subject before and after ingestion of 11 mg. per kg. of body weight (770 mg.) of DDT

Time	Volume in cc.	Color	Specific gravity	Sugar	Albumen	White blood cells	Red blood cells	Reaction
FOREPERIOD								
1	2,950	Light yellow, clear	1.010	0	±	3-4	1-2	Neutral.
2	1,955	Light yellow, turbid	1.012	0	0	±	Occasional	Do.
3	1,780	do.	1.011	0	0	±	Occasional	Alkaline.
6	2,050	Light yellow, clear	1.015	0	0	±	Occasional	Neutral.
7	1,865	do.	1.010	0	0	±	±	Weakly acid.
8	2,440	do.	1.009	0	0	±	±	Neutral.
9	1,880	do.	1.010	0	0	±	Occasional	Weakly acid.
10	1,955	Light yellow, slightly turbid	1.011	0	0	±	Occasional	Slightly acid.
14	1,310	Light yellow, clear	1.011	0	0	±	Occasional	Weakly acid.
EXPOSURE PERIOD								
1	1,900	Light yellow, clear	1.009	0	0	±	±	Weakly acid.
2	1,780	do.	1.011	0	0	±	±	Do.
3	1,740	Light amber, clear	1.013	0	0	±	±	Do.
4	2,465	Light yellow, clear	1.010	0	0	±	±	Neutral.
5	2,925	do.	1.008	0	0	±	±	Do.
6	2,240	do.	1.010	0	±	±	±	Do.
7	1,620	do.	1.013	0	0	±	±	Do.
8	2,730	do.	1.010	0	0	±	±	Do.
9	2,640	do.	1.010	0	0	±	±	Do.
10	2,800	do.	1.010	0	0	±	±	Weakly acid.
11	1,400	do.	1.016	0	0	±	Occasional	Acid.
12	1,885	do.	1.011	0	0	±	±	Do.
13	1,860	do.	1.012	0	0	±	±	Do.
14	2,050	do.	1.011	0	0	±	±	Neutral.

¹ Some loss.

abnormal, nor were there any changes of the blood picture 1 and 2 weeks after the exposure (table 2). Determination of the blood sugar 1, 2, 3, 4½, and 5½ hours after the ingestion of DDT, during which time the subject had taken no food, gave normal values of 83.2, 85.0, 82.6, 81.5, and 68.5 mg. percent, the pre-exposure level being 77.4 mg.

TABLE 2.—*The blood picture of a human subject before and after ingestion of 11 mg. per kg. of body weight (770 mg.) of DDT*

Time	Red blood cells (millions)	Hemoglobin (percent)	White blood cells (thousands)	Lymphocytes (percent)	Monocytes (percent)	Stab cells (percent)	Neutrophils (percent)	Eosinophiles (percent)	Basophiles (percent)
Beginning of foreperiod.....	4.6	95	9.4	45	1	6	47	1	-----
1 week before exposure.....	4.89	92	11.4	26	4	7	54	8	1
Day of exposure.....	4.7	92	7.7	35	4	8	50	3	-----
1 week after exposure.....	4.6	92	9.2	23	9	8	58	2	-----
2 weeks after exposure.....	4.9	98	13.2	24	5	9	61	1	-----

percent. A cephalin-cholesterol flocculation test made 6 days after the ingestion of DDT failed to give evidence of hepatic injury.

These examinations show that following the ingestion of 11 mg. per kg. of body weight, corresponding to 770 mg. of DDT by a normal person, no subjective or objective manifestations could be discovered which would indicate an injurious effect of this dose on the organ functions or the nervous system.

EXCRETORY STUDIES

The excretory studies made with 24-hour urine specimens covered the determination of organic chlorine and of di-(p-chlorophenyl)-acetic acid (DDA), but, as will be shown below, unchanged DDT could not be detected in the urine.

The determination of organic chlorine was made in 24-hour samples of urine preserved with formalin. The urine was acidified with 6 N sulfuric acid to a pH of 2 and then extracted with an equal volume of ether. The extract was washed with distilled water, dried over anhydrous sodium sulfate, and reduced in volume to 50–75 ml. by distillation in a water bath, the temperature of the latter being controlled so that a fair amount of distillation was maintained without excessive heat. The residual extract was then transferred quantitatively to a 100-ml. volumetric flask and made up to volume with ether. As a rule 5-ml. samples of this extract were used for the determination and it was found that larger quantities than this were inconvenient since they caused excessive fouling of the tube and chimney. The chlorine was determined according to the method of Winter (3) as modified by Hall, Schechter, and Fleck (4). It should be pointed out that the small size of the samples and the small amount of the chlorine present made the relative error comparatively large. In addition, the values found had to be multiplied by a factor of about 22 and thus the absolute values of the final results may be impaired considerably, although they give a fair picture of the amounts excreted. In addition, it was found that contamination of the laboratory air with volatile chlorinated hydrocarbons may give rise to very considerable errors.

The determination of organic chlorine in nine 24-hour urine samples collected during the foreperiod gave an average value of 1.0 mg. with 0.8 and 1.5 mg. as extremes. After the ingestion of 770 mg. of DDT it rose on the first, second, third, and fourth days to 2.9, 4.0, 3.0, and 1.5 mg., respectively, and during the subsequent 10 days the average was 1.0 mg. with 0.8 and 1.4 mg. as extremes. It appears, therefore, that after the ingestion of 770 mg. of DDT the peak of the excretion of organic chlorine occurs during the second 24-hour period and that thereafter the excretion decreases rapidly to normal values.

The determination of di-(p-chlorophenyl)-acetic acid (DDA) was made according to the method of Schechter and Haller (5), (6), using the procedure as practiced by Ofner and Calvery (7), the procedure being briefly as follows:

Five milliliters of the 24-hour urine ethereal extract as used for the determination of organic chlorine were placed in a nitration tube, evaporated to dryness, and dried overnight in a vacuum desiccator over sulfuric acid. The residue was then cooled in an ice bath and 2 ml. of a nitrating mixture consisting of equal parts of fuming nitric and sulfuric acid were added. The reaction mixture was cooled in ice for 5 to 10 minutes and then allowed to come to room temperature. It was then placed in a boiling water bath for exactly 1 hour, cooled again in ice, diluted with ice water, and transferred quantitatively to a 75-ml. separating funnel, diluted to about 35 ml., and extracted with 25 ml. of ether. The ether extract was washed once with 5-percent sodium hydroxide and twice with a saturated solution of sodium chloride, filtered through cotton into a 50-ml., glass-stoppered cylinder, and the ether evaporated completely. The residue was taken up in exactly 3 ml. of benzene, mixed with 6 ml. of sodium methylate solution (5 percent metallic sodium in methanol) and the red color which developed was read after 15 minutes in a Coleman spectrophotometer (model 11A) using a 19-mm. cell and a benzene-sodium methylate solution as blank.

The results of these determinations are given in figure 1. It shows that following the ingestion of 770 mg. of DDT there is a sharp rise in the excretion of di-(p-chlorophenyl)-acetic acid (DDA) which reaches its maximum on the second day, decreases rapidly on the third and fourth days, and thereafter decreases gradually.

It will be noted that prior to the ingestion of DDT the normal urine gave a faint color reaction when treated as for the determination of DDA. Since this cannot be due to small quantities of this compound, it must represent some unknown compound present in normal urine. Figure 2 gives the absorption spectra of five normal urines from 400 to 700 $m\mu$. and it will be seen that these represent essentially a smooth curve. If, however, small quantities of DDA (40 γ) are added to such urine the characteristic absorption curve of DDA becomes apparent, as illustrated in figure 3 which gives the absorption spectra of normal

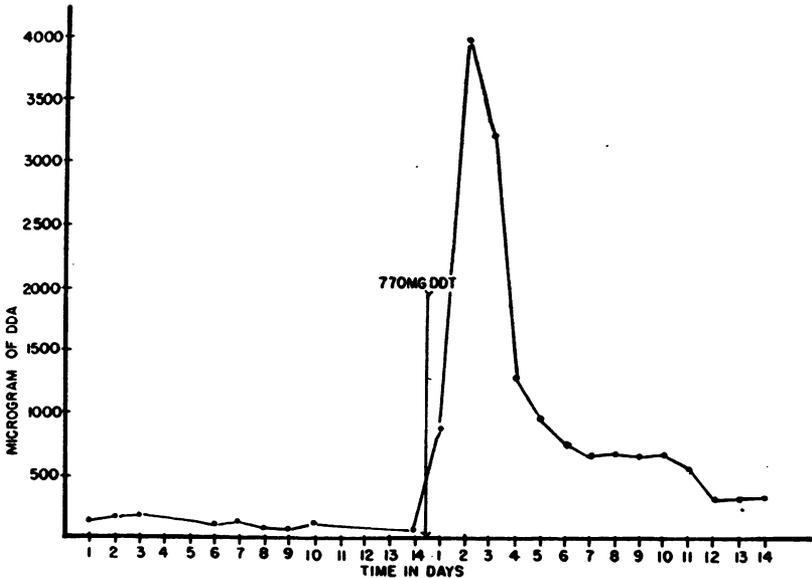


FIGURE 1.—The excretion of DDA in human urine following the ingestion of 770 mg. of DDT in olive oil.

urine, pure DDA in acetone, normal urine containing 40 γ of DDA, and a urine specimen collected on the second day after the ingestion of 770 mg. of DDT. The acidic character of this material was proved by the fact that 75 percent of the material determined could be extracted with alkali. The remaining 25 percent which gave the same color reaction as DDA must represent some other material, as was also pointed out by Ofner and Calvery (7) in excretion studies of DDT with rabbits. This comparison shows beyond reasonable doubt that the results obtained in these determinations represent essentially the values for DDA.

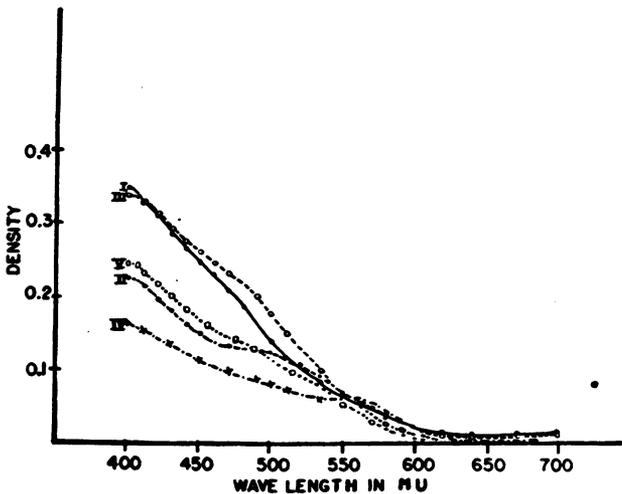


FIGURE 2.—Absorption spectra of the nitration products of extracts of normal urine.

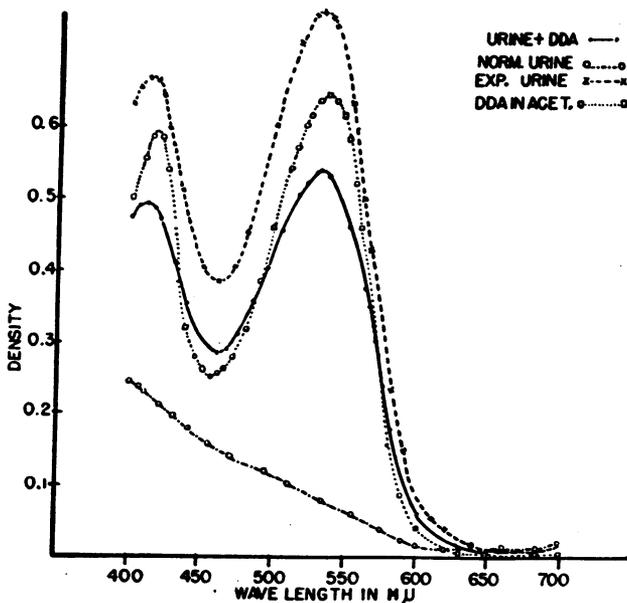


FIGURE 3.—Absorption spectra of normal urine plus 40 γ DDA, normal urine, pure DDA in acetone, and a urine specimen collected on the second day after the ingestion of 770 mg. of DDT in olive oil.

The absence of DDT from the urine is demonstrated by the absorption spectra of the ether extract from urine samples after treatment according to the methods of Schechter and Haller (5), (6), and Ofner and Calvery (7). As illustrated in figure 4, the nitration product of

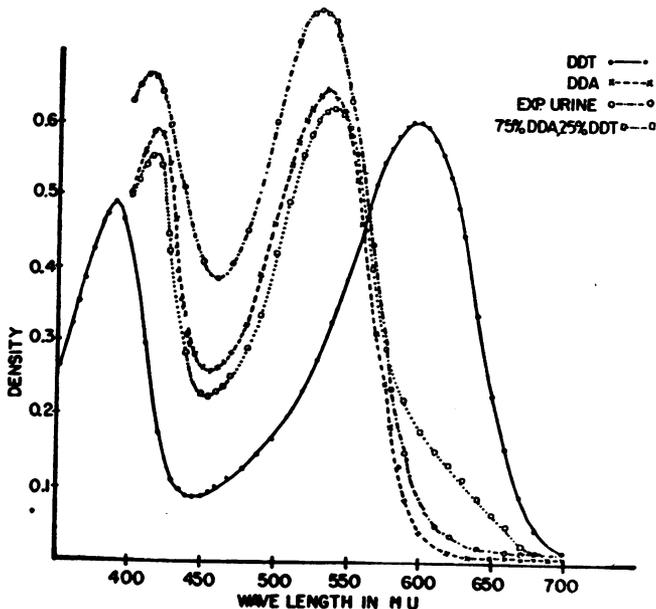


FIGURE 4.—Comparison of the absorption spectra of the nitration products of DDT, a mixture of 75 percent DDA and 25 percent DDT, and a urine specimen collected after the ingestion of 770 mg. of DDT in olive oil.

DDT has a definite absorption in the range between 640 and 700 $m\mu$ which still is distinct with a mixture of 75 percent DDA and 25 percent DDT. In contrast to these, the nitration product of DDA has practically no absorption in this range and the same holds true for urine samples collected after the ingestion of DDT. It is therefore apparent that after the ingestion of 770 mg. of DDT no undecomposed DDT was present in the urine in measurable amounts.

SUMMARY AND CONCLUSIONS

This experiment shows that the ingestion of 11 mg. per kg. of body weight of DDT dissolved in olive oil, corresponding to a total dose of 770 mg., did not cause detectable toxic effects in one normal individual. This experiment shows further that, as in rabbits, part of the DDT ingested is metabolized to di-(p-chlorophenyl)-acetic acid (DDA) and excreted with the urine. Under the conditions of this experiment the maximal excretion of this metabolite occurred on the second day; it decreased rapidly on the third and fourth days, and diminished gradually during the subsequent 10 days.

ACKNOWLEDGMENT

The valuable assistance of Assistant Chemist D. C. Peterson in measuring the absorption spectra and of Junior Chemist M. R. Harris in running the analytical determinations is gratefully acknowledged.

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ALTERATIONS IN THE CARDIAC CONDUCTION MECHANISM IN EXPERIMENTAL THIAMINE DEFICIENCY¹

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A review of the literature on the nature and character of the cardiac rhythm and electrocardiographic findings in thiamine deficiency revealed no general agreement. In man various changes have been reported: Shortening of the PQ conduction time (1), inversion of the T waves (3, 8), increased QRS interval to bundle-branch block (6), sinus arrhythmia, sinus arrest (7), premature beats, auricular tachycardia (15), and tachycardia (13, 17). The following alterations have been observed in experimental animals: Bradycardia (2, 5, 9, 10, 14, 18, 19), shortened or lengthened PR interval (10), T wave and ST-segment changes (14) in rats; heart block (4), tachycardia and inverted T waves (11) in pigeons; deviations of the T wave, lengthening of the QT interval (10) and tachycardia (12) in dogs.

A recent study by Wintrobe et al. (33) of thiamine deficiency in swine revealed pronounced electrocardiographic alterations. They found bradycardia, prolonged PR interval, second-degree A-V block, abnormal P waves, inverted T₄, nodal and ventricular premature beats, A-V dissociation, complete heart block with ectopic ventricular rhythm and auricular fibrillation in their animals. These changes were associated with widespread necrosis in the myocardium.

Ashburn and Lowry (20) have demonstrated histological changes in the musculature of the auricles, ventricles, and pulmonary vessels in chronic vitamin B₁ deficient rats. The magnitude of these pathological changes in the auricles suggested that there should occur demonstrable electrocardiographic alterations in those cases where such pathology existed. The following study was carried out to evaluate this hypothesis.

METHOD

The animals studied were the 24 pairs of albino rats used by Ashburn and Lowry in the second phase of their study (20). One rat of each pair was kept on a diet deficient in thiamine; the other was a littermate control, pair fed with the first but given adequate thiamine. All of the rats were fed a purified diet and given a daily supplement containing 20 micrograms of pyridoxine, 50 micrograms of riboflavin, 50 micrograms of calcium pantothenate, 1 mg. of nicotinic acid, 20 mg. of choline, and a variable amount of thiamine. For the first 6 weeks, each rat in the experimental (thiamine-deficient) group received 4 micrograms of thiamine daily. For the remainder of the experiment thiamine was omitted except during the acute deficiency periods (manifest by spasticity, ataxia, and convulsions) at which time 50

¹ From the Division of Physiology, National Institute of Health.

micrograms of thiamine were injected subcutaneously.² Control animals received 100 micrograms of thiamine daily throughout the experimental period.

Electrocardiograms were taken at weekly intervals and, when possible, during acute deficiency periods and following thiamine therapy. Tracings were made by the following technique:

The rats were restrained in a knitted cloth (washcloth) sewn to form a cylinder 4.0 cm. in diameter and 25.0 cm. in length. The forelegs and the left hindleg were withdrawn through the meshes and the electrodes applied. The rats remained in a prone position. The electrodes were made from small battery clips having reduced spring tension. The contact surfaces were covered with chamois. Before applying these to the rat, the electrodes were soaked in 3-percent saline solution and the hair of the legs was smoothed down with electrode paste. Electrocardiograms were taken with a Sanborn string galvanometer to which a Sanborn cardioscope amplifier had been adapted. The camera speed was 75 mm./sec. and the standardization was 1.0 mv.=2.0 cm. of string deflection. (Under these conditions of camera speed and amplification it was found that the tracings were best suited for detailed study and measurement.) Figure 1 presents semi-diagram-

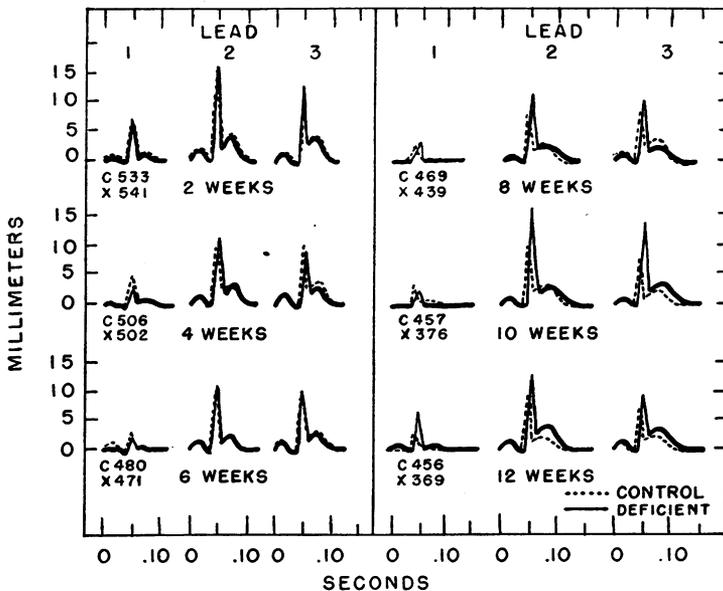


FIGURE 1.—Changes in average heart rates and electrocardiographic configurations of control and thiamine-deficient rats.

matic drawings of the electrocardiograms. These drawings represent the arithmetical mean of the sums of the measurements of the electrocardiograms taken during given periods of the experiment. The measurements used were: PR, QRS, and QT intervals in 0.001 second; the amplitude of the P, Q, R, S, and T deflections in millimeters of deflection from the isoelectric level. The isoelectric level is taken as the level at the beginning of the P wave. The amplitude of the P, Q, R, S, and T waves represents the number of millimeters deflection above or below the isoelectric level.

² For further details of the experimental procedure, see Ashburn and Lowry (8).

RESULTS

It was noted (fig. 1) that, for the first 6-week period, the heart rates and the general configuration of the electrocardiograms in the control and the experimental groups were almost identical. The average heart rates for the experimental and control animals at the end of this period were 471 and 480 beats per minute, respectively. During the following 6 weeks, after thiamine was completely withdrawn from the diet of the experimental animals, marked differences developed. The average heart rate of the experimental animals progressively decreased to 369 beats per minute as compared to 456 beats per minute for the control rats. In the experimental group there was a progressive widening of the PR and QRS intervals as well as an increase in the amplitude of the QRS_{2,3} and T_{2,3}.

In 4 of 11 experimental animals which had electrocardiograms taken during the first acute deficiency episode, auricular fibrillation was noted (fig. 2). In three of these animals the rhythm returned to a normal sinus mechanism within 24 hours after the administration of 50 micrograms of thiamine subcutaneously. The fourth animal died in less than 24 hours after thiamine therapy. Two of these animals died subsequently without further electrocardiographic evidence of altered conduction mechanism.

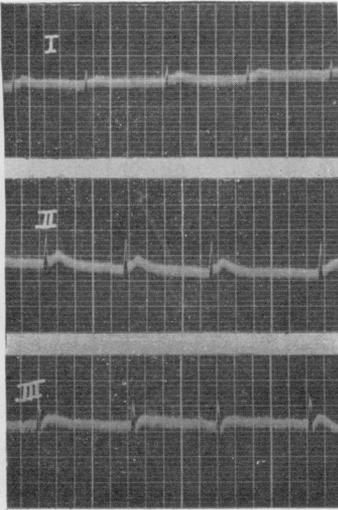
Four of eleven animals which had electrocardiograms taken during their second or third acute deficiency episode exhibited auriculo-ventricular nodal rhythm (fig. 3). One of these animals (No. 16750) had previously exhibited auricular fibrillation.

Premature beats, ectopic beats, bigeminus, auricular standstill, and a shifting pacemaker were not infrequently noted among the deficient group. There were no definite trends in the shifting of the axis; levocardiograms and dextrocardiograms were infrequent and approximately equal in their occurrence.

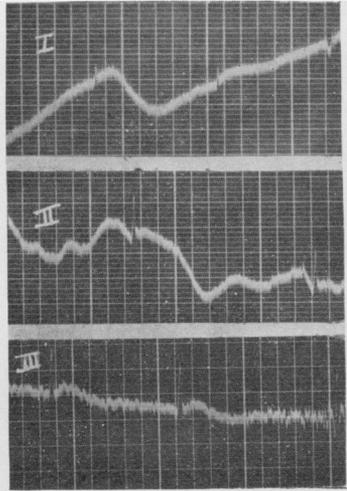
In 14 of the 24 experimental rats pathologic lesions were noted. In 10 of these 14 the lesions were predominantly auricular. Seven of the 14 rats had abnormal electrocardiographic findings.

DISCUSSION

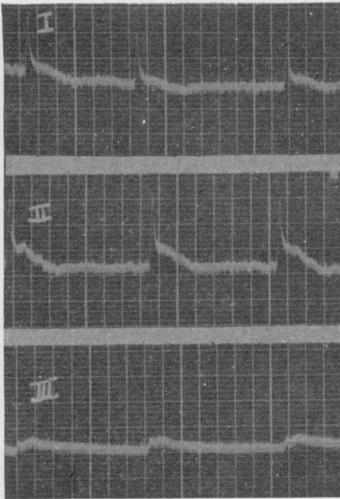
The experimental production of alterations in the cardiac conduction mechanisms and cardiac arrhythmias other than a bradycardia, in rats, as a result of thiamine deficiency has not been reported. Some of de Soldati's (10) rats showed variations in the PR interval. An examination of his protocols shows that of his 18 rats, 8 had prolonged PR intervals and in 7 the PR interval was shorter than normal during their acute deficiencies. In pigs, Wintrobe and associates (33) have reported electrocardiographic changes which were very similar to the changes in rats reported in this paper. Pigeons also developed heart block and other changes (4, 11) similar to the findings in rats.



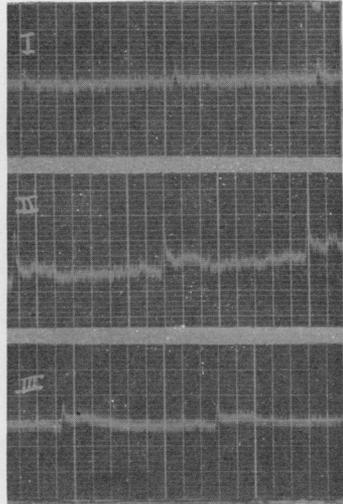
Rat No. 16735. May 25, 1943. 68 days.



Rat No. 16750. May 24, 1943. 54 days.

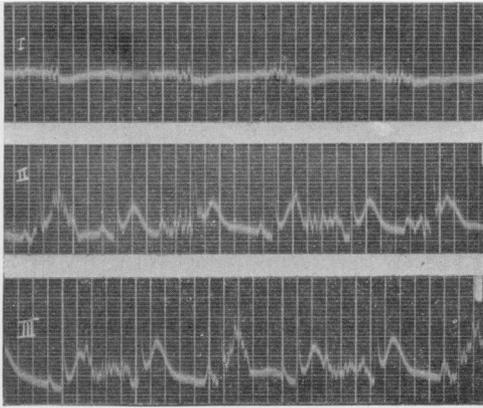


Rat No. 16767. June 12, 1943. 53 days.

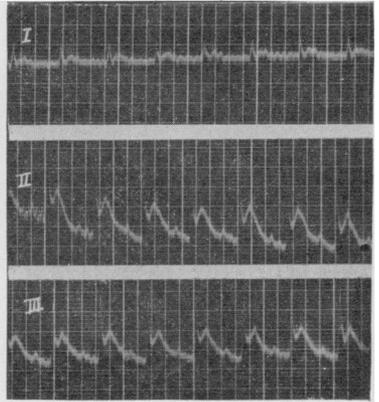


Rat No. 16774. July 3, 1943. 67 days.

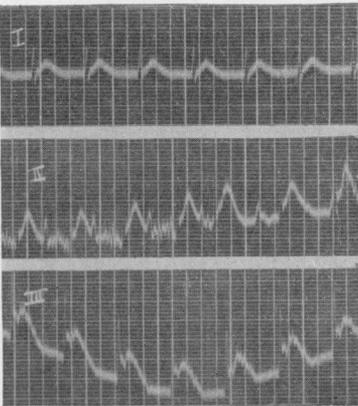
FIGURE 2.—Auricular fibrillation. I, II, and III refer to the respective leads. Standardization 1 mv. = 2 cm. The spaces between the light vertical lines equal 0.04 second; spaces between horizontal lines equal 1 mm.



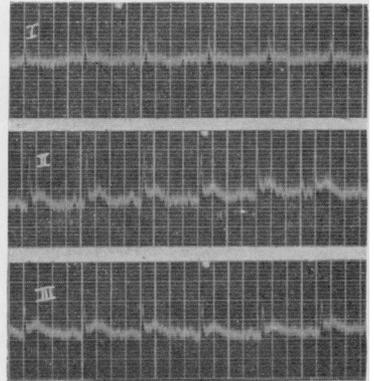
Rat No. 16733. June 29, 1943. 96 days.



Rat No. 16741. July 13, 1943. 120 days.



Rat No. 16750. June 19, 1943. 80 days.



Rat No. 16775. July 17, 1943. 81 days.

FIGURE 3.—Auriculoventricular nodal rhythm. I, II, and III refer to the respective leads. Standardization 1 mv.=2 cm. Spaces between the light vertical lines =0.01 second; spaces between horizontal lines =1 mm.

In the clinical series of Weiss and Wilkins (13) there were three cases in which auricular fibrillation was noted, but this arrhythmia was not considered a part of the cardiac picture in vitamin B₁ deficiency. Since auricular fibrillation can occur in experimental animals apparently as the result of a chronic thiamine deficiency, a possible etiological factor in the occurrence of this arrhythmia, so frequently noted in thyrotoxic heart disease, rheumatic heart disease, and that of "unknown origin," is suggested. Means (21, 22), Frazier and Ravdin (23), and Gounelle (24) have noted a clinical correlation between thiamine deficiency and thyrotoxicosis. Morehead (25, 26) has commented on the similarity of the cardiac manifestations of vitamin B₁ deficiency to those seen in acute rheumatic fever in the young adult.

Auriculoventricular nodal rhythm, when established, was not converted to a normal rhythm by large doses of thiamine (100 micrograms per day) in the two rats so treated. In one rat with an auriculoventricular nodal rhythm, sectioning the vagi did not alter the rhythm. This rhythm tended to maintain a relative bradycardia, 300 ± 30 beats per minute, which was only transiently affected by exercise or excitement.

A direct correlation between the occurrence of auricular fibrillation and nodal rhythm, and the degree of demonstrable pathology could not be established from the data at hand.

The physiological and pathological changes appear to be the result of abnormal tissue metabolism (27, 28, 29, 30, 31, 32). It might be expected, therefore, that they would vary in degree and in persistence. Early or slight abnormalities might cause changes which are completely reversible, while more severe deviations from the normal might result in permanent damage to the tissue.

SUMMARY AND CONCLUSIONS

Electrocardiographic studies of rats in thiamin deficiency are reported.

Auricular fibrillation and auriculoventricular nodal rhythm were observed in addition to the previously noted bradycardia. Less frequent conduction defects included premature beats, ectopic beats, auricular standstill, and a shifting pacemaker.

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PREVALENCE OF COMMUNICABLE DISEASES IN THE UNITED STATES

January 27–February 23, 1946

The accompanying table summarizes the prevalence of nine important communicable diseases, based on weekly telegraphic reports from State health departments. The reports from each State for each week are published in the PUBLIC HEALTH REPORTS under the section "Prevalence of disease." The table gives the number of cases of these diseases for the 4 weeks ended February 23, 1946, the number reported for the corresponding period in 1945, and the median number for the years 1941–45.

DISEASES ABOVE MEDIAN PREVALENCE

Diphtheria.—For the 4 weeks ended February 23 there were 1,487 cases of diphtheria reported, as compared with 1,242 for the corresponding period in 1945 and a 5-year (1941–45) median of 1,158 cases. In each section of the country except the West South Central and Pacific regions the incidence was higher than in 1945, while all sections except the West South Central reported excesses over the 5-year expectancy. For the country as a whole the current incidence was the highest for this period since 1940, when 1,525 cases were reported.

Influenza.—The number of cases of influenza dropped from approximately 116,000 during the preceding 4 weeks to 38,746 during the 4 weeks ended February 23. The number of cases was, however, 2.2 times the incidence for the corresponding weeks in 1945 and 1.8 times the 1941–45 median (22,139 cases). While each region except the Middle Atlantic and Mountain sections reported an excess over the normal expectancy, the greatest excesses occurred in the Pacific, East North Central, and West South Central sections. The number of cases for the country as a whole was only slightly lower than the number reported for the corresponding weeks in 1944, following the 1943–44 epidemic.

Poliomyelitis.—For the 4 weeks ended February 23 there were 143 cases of poliomyelitis reported as compared with 171, 90, and 92 for the corresponding period in 1945, 1944, and 1943, respectively. While the current incidence was lower than in 1945, it was above the 1941–45 median, which was represented by the 1942 incidence of 171 cases. The greatest increases over the normal seasonal expectancy were reported from the South Atlantic and Pacific sections.

DISEASES BELOW MEDIAN PREVALENCE

Measles.—The number of cases of measles (48,914) was 6 times the number reported for the corresponding period in 1945, but it was only about 80 percent of the 1941–45 median. Each section of the

country reported a very significant increase over the 1945 figure for the same weeks, but only 3 sections, the East North Central, West North Central, and Pacific, reported an increase over the preceding 5-year median. With the exception of 1945, which was an unusually low year for this disease, the current incidence is the lowest since 1940 when approximately 22,000 cases were reported for the corresponding 4-week period.

Meningococcus meningitis.—The number of cases of this disease dropped from 907 during the 4 weeks ended January 27 to 733 for the 4 weeks ended February 23. The number of cases was only about 70 percent of the 1941–45 median, which was represented by the 1945 figure. In the West North Central section the number of cases was slightly above the seasonal expectancy and in the New England section the incidence was about normal, but in all other regions the numbers of cases were considerably below the seasonal median. A decline in this disease during this period is somewhat unexpected since its highest incidence is normally reached during February or March.

Number of reported cases of 9 communicable diseases in the United States during the 4-week period Jan. 27–Feb. 23, 1946, the number for the corresponding period in 1945, and the median number of cases reported for the corresponding period, 1941–45

Division	Current period	1945	5-year median	Current period	1945	5-year median	Current period	1945	5-year median
	Diphtheria			Influenza ¹			Measles ²		
United States.....	1,487	1,242	1,158	38,746	17,922	22,139	48,914	8,107	61,200
New England.....	30	25	23	146	127	127	1,314	606	4,084
Middle Atlantic.....	169	113	116	133	43	137	13,341	817	19,096
East North Central.....	307	118	160	1,011	164	495	12,128	635	7,455
West North Central.....	158	104	97	277	187	235	4,753	371	4,196
South Atlantic.....	228	185	185	10,003	5,659	6,738	3,298	961	7,041
East South Central.....	122	118	106	3,016	1,066	2,825	2,494	268	2,975
West South Central.....	223	338	247	19,712	9,817	9,817	2,669	1,208	2,785
Mountain.....	74	65	65	1,637	697	1,999	1,934	389	3,215
Pacific.....	176	176	123	2,811	142	634	6,983	2,852	3,874
	Meningococcus meningitis			Poliomyelitis			Scarlet fever		
United States.....	733	1,034	1,034	143	171	101	13,443	22,910	16,265
New England.....	41	40	40	3	8	2	1,156	2,036	2,036
Middle Atlantic.....	153	213	213	15	60	8	3,498	4,599	3,945
East North Central.....	118	200	151	11	9	9	3,757	5,987	4,801
West North Central.....	70	62	62	7	14	12	1,393	2,353	1,880
South Atlantic.....	103	161	161	32	21	14	1,122	2,659	1,293
East South Central.....	84	107	107	16	15	9	430	967	772
West South Central.....	72	122	94	17	10	11	506	856	454
Mountain.....	11	22	22	7	7	7	481	1,303	1,008
Pacific.....	81	107	107	135	27	21	1,100	2,150	865
	Smallpox			Typhoid and paratyphoid fever			Whooping cough ²		
United States.....	29	43	102	150	258	258	6,998	9,357	15,061
New England.....	0	0	0	12	14	12	910	1,141	1,256
Middle Atlantic.....	1	0	0	12	82	36	1,925	1,905	2,982
East North Central.....	3	17	17	22	14	29	1,481	1,625	3,151
West North Central.....	3	4	15	7	18	15	182	385	669
South Atlantic.....	1	2	2	38	32	43	850	1,246	1,941
East South Central.....	2	2	5	9	22	24	226	270	580
West South Central.....	15	11	16	25	43	43	579	1,181	1,181
Mountain.....	3	2	3	6	12	11	361	531	531
Pacific.....	1	5	1	19	21	16	484	1,073	1,270

¹ Mississippi and New York excluded; New York City included.

² Mississippi excluded.

Scarlet fever.—Scarlet fever incidence was also below normal, 13,433 cases being reported for the current period as compared with 22,910 for the corresponding period in 1945, and a 5-year median of 16,256 cases. In the West South Central and Pacific sections the incidence was slightly above the normal seasonal level, but in all other regions the numbers of cases were relatively low. For the country as a whole the current incidence was the lowest since 1940 when 19,277 cases were reported for the corresponding period.

Smallpox.—The incidence of smallpox continued at a low level. There were 29 cases reported for the current 4 weeks, as compared with 43 cases during the corresponding period in 1945, and a 5-year median of 102 cases. Fifteen of the total cases were reported from the West South Central region and the remaining 14 were scattered over the other geographic sections. The first case of smallpox to occur in the Middle Atlantic section since 1943 was reported from New Jersey during the week ended February 23.

Typhoid and paratyphoid fever.—The incidence of these diseases was the lowest on record for this period. For the 4 weeks ended February 23 there were 150 cases reported, which was less than 60 percent of the 1941-45 median (258 cases). The situation was favorable in all sections of the country, the cases either closely approximating or falling below the normal seasonal expectancy.

Whooping cough.—There were 6,998 cases of whooping cough reported for the 4 weeks ended February 23. The number was less than 75 percent of the number reported during the corresponding period in 1945 and less than 50 percent of the preceding 5-year median. The incidence was relatively low in all sections of the country.

MORTALITY, ALL CAUSES

For the 4 weeks ended February 23 there were 39,812 deaths from all causes reported by 93 large cities to the Bureau of the Census. The 1943-45 average number of deaths for this period was 39,617.

DEATHS DURING WEEK ENDED FEBRUARY 23, 1946

[From the Weekly Mortality Index, issued by the Bureau of the Census, Department of Commerce]

	Week ended Feb. 23, 1946	Correspond- ing week, 1945
Data for 93 large cities of the United States:		
Total deaths.....	9,470	9,351
Average for 3 prior years.....	9,820
Total deaths, first 8 weeks of year.....	84,000	78,392
Deaths under 1 year of age.....	595	592
Average for 3 prior years.....	649
Deaths under 1 year of age, first 8 weeks of year.....	4,855	5,063
Data from industrial insurance companies:		
Policies in force.....	67,171,224	67,066,872
Number of death claims.....	12,300	11,945
Death claims per 1,000 policies in force, annual rate.....	9.5	9.3
Death claims per 1,000 policies, first 8 weeks of year, annual rate.....	11.2	10.4

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

REPORTS FROM STATES FOR WEEK ENDED MARCH 2, 1946

Summary

The incidence of influenza declined during the week to a total of 5,337 cases as compared with 7,234 last week and a 5-year (1941-45) median of 5,249. Increases occurred in only 3 States reporting currently more than 200 cases—Wisconsin, Arizona, and California. The largest numbers were reported in Texas (1,792), South Carolina (711), and Virginia (430). The total to date is 160,350, as compared with 39,166 and 306,514, respectively, for the corresponding periods of 1945 and 1944, and a 5-year median for the period of 44,521.

A total of 362 cases of diphtheria was reported, as compared with 337 last week and a 5-year median of 270. Increases occurred in 5 of the 7 States reporting more than 14 cases each, as follows: Texas 49, Ohio 32, Kentucky 20, New York 19, and Indiana, Arkansas, and California, 18 each. The total to date, 3,573, is more than reported for a corresponding period of any other year since 1940, in which year 3,716 cases had been reported.

A total of 24,790 cases of measles was reported, as compared with 15,725 last week and a 5-year median of 18,496. Increases were reported in all sections of the country except the West South Central area. The greatest increases, as well as about 72 percent of the total number of cases, occurred in the Middle Atlantic, East North Central, and Pacific areas. The 6 States reporting more than 900 cases each, aggregating 15,497 cases, are as follows (last week's figure in parentheses): New York 4,228 (1,469), New Jersey 1,259 (689), Pennsylvania 2,869 (1,614), Illinois 1,888 (1,483), Michigan 2,867 (2,103), California 2,386 (1,362). The total to date is 93,989, as compared with a 5-year median for the period of 114,932.

Of a total of 202 cases of meningococcus meningitis, Pennsylvania reported 24, Illinois 23, New York 18, California 16, and Ohio 12. Of 52 cases of poliomyelitis, Florida reported 17, Washington 7, and California 6,

Deaths recorded during the week in 93 large cities of the United States totaled 10,371, as compared with 9,474 last week, 9,866 and 9,852, respectively, in 1945 and 1944, and a 3-year (1943-45) average of 9,850. The total for the year to date is 94,375, as compared with 88,258 for the corresponding period of 1945.

Telegraphic morbidity reports from State health officers for the week ended Mar. 2, 1946, and comparison with corresponding week of 1945 and 5-year median

In these tables a zero indicates a definite report, while leaders imply that, although none was reported, cases may have occurred.

Division and State	Diphtheria			Influenza			Measles			Meningitis, meningococcus		
	Week ended—		Median 1941- 45	Week ended—		Median 1941- 45	Week ended—		Median 1941- 45	Week ended—		Median 1941- 45
	Mar. 2, 1946	Mar. 3, 1945		Mar. 2, 1946	Mar. 3, 1945		Mar. 2, 1946	Mar. 3, 1945		Mar. 2, 1946	Mar. 3, 1945	
NEW ENGLAND												
Maine.....	1	0	1	30	1	1	10	4	88	4	0	2
New Hampshire.....	0	0	0	-----	-----	4	-----	6	6	1	1	0
Vermont.....	4	0	0	10	-----	-----	2	20	47	0	0	0
Massachusetts.....	6	4	4	-----	-----	-----	446	104	597	2	8	11
Rhode Island.....	1	0	0	2	44	1	6	8	27	0	4	4
Connecticut.....	1	1	1	4	3	3	107	94	259	3	3	4
MIDDLE ATLANTIC												
New York.....	19	11	18	18	13	112	4,228	90	2,040	18	34	34
New Jersey.....	3	1	3	15	3	11	1,259	47	1,299	2	13	13
Pennsylvania.....	13	11	11	5	2	2	2,869	116	976	24	19	19
EAST NORTH CENTRAL												
Ohio.....	32	8	8	11	5	18	156	35	292	12	11	6
Indiana.....	18	8	9	5	40	40	529	12	320	2	4	4
Illinois.....	14	2	14	8	8	23	1,888	83	835	23	20	15
Michigan ¹	7	10	4	2	2	2	2,867	22	241	8	5	5
Wisconsin.....	0	0	0	310	59	59	729	33	668	2	5	4
WEST NORTH CENTRAL												
Minnesota.....	8	7	4	2	1	1	25	4	58	6	3	3
Iowa.....	4	2	3	-----	-----	-----	10	45	16	298	3	1
Missouri.....	8	4	4	7	4	6	560	9	255	4	7	7
North Dakota.....	3	0	0	11	40	40	2	1	53	2	1	0
South Dakota.....	1	1	1	-----	-----	-----	83	35	35	0	0	0
Nebraska.....	1	2	3	19	-----	-----	7	114	18	56	0	0
Kansas.....	7	8	6	1	1	9	875	13	428	2	2	2
SOUTH ATLANTIC												
Delaware.....	3	0	0	-----	-----	-----	22	20	20	2	0	0
Maryland ¹	9	5	5	4	12	29	232	59	115	6	5	5
District of Columbia.....	0	0	2	1	1	3	124	8	67	0	1	2
Virginia.....	5	6	6	430	616	632	591	45	338	6	10	10
West Virginia.....	5	1	4	12	16	43	42	28	229	2	1	1
North Carolina.....	10	12	12	-----	-----	-----	52	323	42	490	6	8
South Carolina.....	5	2	2	711	984	984	264	24	192	1	4	5
Georgia.....	0	4	5	30	21	144	224	27	200	2	5	4
Florida.....	2	3	3	4	2	5	53	47	165	7	10	5
EAST SOUTH CENTRAL												
Kentucky.....	20	5	5	173	35	35	648	19	205	3	8	8
Tennessee.....	4	3	3	47	43	108	242	83	185	6	7	7
Alabama.....	6	8	3	308	198	232	135	10	148	4	2	2
Mississippi ¹	12	12	4	-----	-----	-----	-----	-----	-----	5	3	3
WEST SOUTH CENTRAL												
Arkansas.....	18	10	4	223	155	174	70	27	126	3	8	1
Louisiana.....	1	2	4	140	2	8	23	15	85	1	1	3
Oklahoma.....	10	6	6	198	233	209	155	23	34	2	1	0
Texas.....	49	41	37	1,792	1,415	1,634	574	431	620	5	23	6
MOUNTAIN												
Montana.....	7	1	1	12	24	25	11	6	90	0	0	0
Idaho.....	2	4	0	54	-----	-----	86	7	26	1	0	0
Wyoming.....	0	0	0	-----	-----	-----	14	12	8	7	1	1
Colorado.....	3	8	7	91	35	64	275	14	207	1	0	1
New Mexico.....	0	2	2	9	8	8	9	3	47	0	2	0
Arizona.....	2	1	1	213	66	181	48	3	111	0	3	1
Utah ¹	0	0	0	60	1	20	512	124	93	0	1	0
Nevada.....	0	0	0	-----	3	3	13	7	5	0	0	0
PACIFIC												
Washington.....	11	5	4	-----	2	3	687	84	150	3	3	3
Oregon.....	9	2	1	14	13	29	229	42	142	1	1	1
California.....	18	30	20	361	40	87	2,386	843	843	16	18	18
Total	362	253	270	5,337	4,141	5,249	24,790	2,813	18,496	202	267	267
9 weeks	3,573	2,880	2,750	160,350	39,166	44,521	93,989	16,310	114,932	1,844	2,254	2,254

¹ New York City only.

² Period ended earlier than Saturday.

Telegraphic morbidity reports from State health officers for the week ended Mar. 2, 1946, and comparison with corresponding week of 1945 and 5-year median—Continued.

Division and State	Poliomyelitis			Scarlet fever			Smallpox			Typhoid and paratyphoid fever ¹		
	Week ended—		Median 1941-45	Week ended—		Median 1941-45	Week ended—		Median 1941-45	Week ended—		Median 1941-45
	Mar. 2, 1946	Mar. 3, 1945		Mar. 2, 1946	Mar. 3, 1945		Mar. 2, 1946	Mar. 3, 1945		Mar. 2, 1946	Mar. 3, 1945	
NEW ENGLAND												
Maine.....	0	0	0	65	62	7	0	0	0	1	1	0
New Hampshire.....	0	0	0	35	6	8	0	0	0	0	9	0
Vermont.....	0	0	0	2	11	8	0	0	0	0	0	0
Massachusetts.....	1	0	0	198	322	322	0	0	0	5	2	1
Rhode Island.....	0	0	0	13	47	17	0	0	0	0	1	0
Connecticut.....	0	0	0	53	81	61	0	0	0	1	0	1
MIDDLE ATLANTIC												
New York.....	2	1	1	596	719	548	0	0	0	5	5	6
New Jersey.....	1	1	1	144	175	199	0	0	0	1	0	1
Pennsylvania.....	0	0	0	407	651	563	0	0	0	1	9	5
EAST NORTH CENTRAL												
Ohio.....	1	1	1	350	498	399	0	0	0	0	2	2
Indiana.....	0	0	0	103	188	170	2	1	1	2	1	1
Illinois.....	0	2	0	269	453	453	0	0	1	5	4	2
Michigan ²	0	0	0	166	259	259	0	0	0	0	1	1
Wisconsin.....	1	0	0	166	280	280	0	0	0	0	1	0
WEST NORTH CENTRAL												
Minnesota.....	0	1	0	61	96	96	0	0	0	0	0	0
Iowa.....	0	2	0	71	65	65	0	1	1	0	0	0
Missouri.....	0	2	0	77	173	117	0	0	0	0	1	1
North Dakota.....	0	0	0	3	19	19	0	0	0	0	0	0
South Dakota.....	0	0	0	23	11	21	0	1	1	1	0	0
Nebraska.....	0	0	0	43	83	67	1	1	0	0	0	0
Kansas.....	0	0	0	90	120	102	0	2	0	1	0	0
SOUTH ATLANTIC												
Delaware.....	0	0	0	8	18	15	0	0	0	0	0	0
Maryland ²	0	0	0	119	284	91	0	0	0	0	0	1
District of Columbia.....	1	0	0	25	61	26	0	0	0	0	0	0
Virginia.....	3	2	1	135	174	42	0	0	0	4	1	1
West Virginia.....	0	0	0	36	58	57	0	0	0	0	0	0
North Carolina.....	0	3	1	42	90	45	0	0	0	0	3	0
South Carolina.....	3	0	0	9	9	9	0	0	0	0	1	0
Georgia.....	0	0	0	13	31	17	0	1	0	2	6	3
Florida.....	17	0	1	7	14	12	0	0	0	0	1	2
EAST SOUTH CENTRAL												
Kentucky.....	1	2	0	31	89	89	0	0	0	3	1	2
Tennessee.....	0	0	1	44	67	67	0	0	0	2	0	2
Alabama.....	0	0	1	16	20	20	0	0	0	0	0	0
Mississippi ²	0	0	0	3	54	10	0	0	0	2	0	0
WEST SOUTH CENTRAL												
Arkansas.....	1	2	1	14	26	6	0	0	0	1	1	1
Louisiana.....	2	1	1	2	15	11	0	0	0	2	0	1
Oklahoma.....	0	0	0	17	27	27	0	0	0	0	0	0
Texas.....	1	2	1	74	136	79	1	0	2	3	3	4
MOUNTAIN												
Montana.....	4	1	0	10	43	35	0	0	0	0	0	0
Idaho.....	0	0	0	8	57	6	0	1	0	0	0	0
Wyoming.....	0	0	0	17	8	14	0	0	0	0	0	0
Colorado.....	0	0	0	44	92	53	0	0	0	2	0	2
New Mexico.....	0	0	0	5	30	10	0	0	0	0	1	1
Arizona.....	0	0	0	14	25	13	0	0	0	0	1	1
Utah ²	0	0	0	29	38	38	0	0	0	0	0	0
Nevada.....	0	0	0	0	5	2	0	1	0	0	0	0
PACIFIC												
Washington.....	7	0	0	38	120	66	0	0	0	0	0	0
Oregon.....	0	0	0	26	53	14	0	0	0	0	0	1
California.....	6	3	2	227	452	144	1	0	0	3	0	2
Total.....	52	26	19	3,948	6,425	4,357	5	9	16	47	47	56
9 weeks.....	405	340	247	28,330	48,347	34,622	63	86	191	367	525	630

¹ Period ended earlier than Saturday.

² Including paratyphoid fever reported separately, as follows: Massachusetts 5; Connecticut 1; New York 1; Louisiana 1; Colorado 1; California 1.

Telegraphic morbidity reports from State health officers for the week ended Mar. 2, 1946, and comparison with corresponding week of 1945 and 5-year median—Con.

Division and State	Whooping cough			Week ended Mar. 2, 1946							
	Week ended—		Med-ian 1941- 45	Dysentery			En-cep-hal-itis, infectious	Rocky Mt. spot- ted fever	Tula-remia	Ty-phus fever, en- demic	Un- du- lant fever
	Mar. 2, 1946	Mar. 3, 1945		Ame- bic	Bacil- lary	Un- spec- ified					
NEW ENGLAND											
Maine.....	26	51	28								1
New Hampshire.....			12								
Vermont.....	7	43	35								2
Massachusetts.....	120	175	175		9						
Rhode Island.....	58	33	33								
Connecticut.....	82	37	40	2							
MIDDLE ATLANTIC											
New York.....	168	234	341	4	4		1		1		2
New Jersey.....	140	103	107	1							1
Pennsylvania.....	113	171	227								
EAST NORTH CENTRAL											
Ohio.....	51	135	177								1
Indiana.....	25	13	29	1		1			1		
Illinois.....	77	85	85	4					2		20
Michigan ¹	138	49	130	1	2						1
Wisconsin.....	81	63	104								10
WEST NORTH CENTRAL											
Minnesota.....	1	39	43	1							8
Iowa.....	14	9	18	1			1				
Missouri.....	3	7	12								
North Dakota.....		1	14								
South Dakota.....		4	4								1
Nebraska.....	2	2	6								
Kansas.....	37	44	58				1				
SOUTH ATLANTIC											
Delaware.....	7										
Maryland ¹	19	38	54			1					2
District of Columbia.....	6	2	11								
Virginia.....	37	36	55			33					
West Virginia.....	48	62	53								
North Carolina.....	32	116	178						2		1
South Carolina.....	52	54	61	2	5						2
Georgia.....	25	20	37	4							3
Florida.....	6	29	23	1	1						1
EAST SOUTH CENTRAL											
Kentucky.....	15	44	51						1		
Tennessee.....	4	19	26						4		
Alabama.....	10	13	13	1			1		1		4
Mississippi ¹											2
WEST SOUTH CENTRAL											
Arkansas.....	16	16	16				1				1
Louisiana.....	2	1	2	2							1
Oklahoma.....	4	11	11	1							
Texas.....	95	215	215	12	170	12					8
MOUNTAIN											
Montana.....	6	1	6						2		1
Idaho.....	14		9	1							
Wyoming.....	1	5	2								
Colorado.....	29	30	30								1
New Mexico.....	6	17	17		1						
Arizona.....	16	23	23			16					1
Utah ¹	18	17	23								
Nevada.....											
PACIFIC											
Washington.....	46	38	55								1
Oregon.....	10	4	13								
California.....	98	284	284	2	3						1
Total	1,765	2,393	3,907	41	195	63	5	0	14	22	70
Same week, 1945.....	2,393			22	385	265	7	0	9	32	85
Average, 1943-45.....	2,780			27	271	125	13	4	9	32	
9 weeks: 1946.....	16,161			363	2,623	1,018	66	3	189	490	573
1945.....	20,816			244	5,066	1,281	57	4	198	511	760
Average, 1943-45.....	24,087		34,878	211	2,923	725	79	4	148	412	

¹ Period ended earlier than Saturday.

² 5-year median, 1941-45.

NOTIFIABLE DISEASES, YEAR 1945

The figures in the following table are the totals of the monthly morbidity reports received from the State health authorities for the year 1945. These reports are preliminary and the figures are therefore more or less incomplete. In most instances they include cases reported in both civilian and military populations. The comparisons made are with similar preliminary reports; but owing to population shifts and the presence of large military populations in certain States, the figures for some States are not comparable with those for prior years, especially for certain diseases. Each State health officer has been requested to include in the monthly report for his State all diseases that are required by law or regulation to be reported in the State, although some do not do so. The lists of diseases required to be reported are not the same for each State. Only 11 of the common communicable diseases are notifiable in all the States. In some instances cases are reported, in some States, of diseases that are not required by law or regulation to be reported, and the figures are included although manifestly incomplete. There are also variations among the States in the degree of completeness of reporting of cases of the reportable diseases. As compared with the deaths, incomplete case reports are obvious for such diseases as malaria, pellagra, pneumonia, and tuberculosis, while in many States other diseases, such as puerperal septicemia, rheumatic fever, and Vincent's infection, are not reportable.

In spite of these known deficiencies, however, these monthly reports, which are published quarterly and annually in consolidated form, have proved of value in presenting early information regarding the reported incidence of a large group of diseases and in indicating a trend by providing a comparison with similar preliminary figures for prior years. The table also gives a picture of the geographic prevalence of certain diseases, as the States are arranged by geographic location.

Leaders are used in the table to indicate that no case of the disease was reported.

Consolidated monthly State morbidity reports for the year 1945

Division and State	An-thrax	Chick-enpox	Con-junctivitis	*Diph-theria	Dysen-tery, amebic	Dysen-tery, bacillary	Dysen-tery, undetermined	Er-cephalitis, infectious	Ger-man measles	Hook-worm disease	Influ-enza	Ma-laria*	*Meas-sles	*Men-ingitis, gonococcus	Mumps	Oph-thalmia-trochaeorum	Pella-gra	Præn-menstrual forms
NEW ENGLAND																		
Maine.....		2,409		79	1	3		3	215		77	28	137	27	2,171		1	646
New Hampshire.....	6	578		16					70		106	4	400	18	634			47
Vermont.....		2,567		27				1	1,426		273	4	466	8	3,590			55
Massachusetts.....	4	10,400	301	207	18	244		24	1,311	5		1,028	7,488	187	15,728	191		* 2,138
Rhode Island.....		1,271		12	1	26		6	19		1,461	168	274	41	1,363			419
Connecticut.....	1	5,593	90	49	4	220		4	581	10	121	300	2,710	109	5,204	1		2,482
MIDDLE ATLANTIC																		
New York.....	4	21,495	1	420	176	886		50			431	1,284	5,195	848	4,204	61		16,380
New Jersey.....	2	21,083		139	53	8		8	2,665		648	1,413	1,756	283	7,689	14		3,852
Pennsylvania.....	18	20,767		416	8	16		12			251		11,364	529	12,192	14	2	3,158
EAST NORTH CENTRAL																		
Ohio.....	1	11,699		774	13	13	20	13	930		839	110	1,555	400	4,315	493	1	2,699
Indiana.....		2,884		401	26	4	41	17	1,001	2	5,088	643	890	153	2,087		2	333
Illinois.....		10,523		195	150	128		57	1,001		922	7,830	611	7,202	7,202	480		6,578
Michigan.....		15,817	200	684	56	131	3	1	1,182	1	114	473	6,208	270	8,081	28		2,365
Wisconsin.....		24,668		108	6			4	438		5,451	188	2,297	145	16,949			4,769

WEST NORTH CENTRAL																	
Minnesota.....	7,127	1	474	96	12	17	6	39	2	90	296	387	119	2,768	1	2	275
Iowa.....	2,472		226	6		27	66			660	465	1,279	91	1,678			1,181
Missouri.....	1,419	2	270	1		1	7	66		346	426	1,119	18	1,678			1,627
North Dakota.....	866	3	122	1		1	7			4,561	1	502	35	324			808
South Dakota.....	815	2	96			1	2			28	13	833	24	1,193			1,117
Nebraska.....	1,017		132				19			1,666	13	833	24	1,193			427
Kansas.....	4,541	140	291	7	10	1		670		31,487	781	1,311	70	6,413	1		962
SOUTH ATLANTIC																	
Delaware.....	215		22	1	3	34		540		41	47	261	18	227			31
Maryland.....	3,563	31	563	9	27					476	566	1,088	122	2,369	18		2,158
District of Columbia.....	1,104		22	2	9					98	144	203	58	304	1		910
Virginia.....	2,793		577	13		7,098				31,460	832	1,626	216	1,021	9		2,654
West Virginia.....	933		308	22	4					18,821	175	848	118	278			2,654
North Carolina.....	1,476		1,476	21	67					554	1,194	179	69	3,441			4,940
South Carolina.....	2,440		637	127	1,370	38		546		27,915	9,860	1,146	95	9,964			4,702
Georgia.....	1,462	33	659	30	190	6		176		3,381	9,915	639	167	1,350			1,114
Florida.....	1,993	26	240	96	26					152	655	702					
EAST SOUTH CENTRAL																	
Kentucky.....	1,162		426	8	26			33		119,668	1,071	1,691	163	799			779
Tennessee.....	1,318		681	17		116		113	2	2,746	1,911	1,717	250	1,787			1,014
Alabama.....	1,004		698	72				795		7,339	2,913	349	218	1,407			3,050
Mississippi.....	7,568		749	1,224	9,939					64,855	18,764	11,891	148	7,548			15,331
WEST SOUTH CENTRAL																	
Arkansas.....	1,311		506	114	347			995	33	8,073	2,262	1,307	178	1,817			2,533
Louisiana.....	585		459	150	115			125	639	8,129	1,327	1,096	117	1,407			2,287
Oklahoma.....	636		259	27	133			8	6	6,757	1,141	937	66	763			1,294
Texas.....	15,200	2	2,481	680	20,226	1,966			16	94,558	8,969	11,040	458	9,527			11,962
MOUNTAIN																	
Montana.....	2,483	202	80	1	7			216	3	2,401	32	499	22	1,531			300
Idaho.....	1,082	35	66	4	16			197	5	2,863	39	1,686	14	439			184
Wyoming.....	708	92	14	4		41		42		380	7	769	8	217			129
Colorado.....	4,456		264	11	16					3,491	6,830	832	48	2,155			1,091
New Mexico.....	448	20	181	14	106	40		28		111	70	262	18	353			732
Arizona.....	1,457	12	126	11	4	1,045		242	7	7,223	189	340	24	649			1,306
Utah.....	5,380	4	18					558	1	32,036	112	4,788	14	3,795			218
Nevada.....	266	15	1	2	2					539	5	333	3	701			67
PACIFIC																	
Washington.....	8,357	72	200	7	51	496		1,354	20	6,175	6	7,267	135	7,776			1,363
Oregon.....	2,443	3	282	1	1	47			2	5,825	54	1,980	61	1,561			649
California.....	43,737	28	1,458	151	287			12,480	298	1,426	1,911	34,441	790	39,014			3,416
Total.....	264,625	1,329	19,066	3,341	34,672	11,125	673	26,222	16,194	511,489	61,266	144,398	8,035	196,317	1,571	3,837	108,777
Year 1944.....	319,510	1,492	14,122	3,220	37,525	9,421	667	38,339	16,104	476,275	55,693	623,700	16,094	175,643	1,649	4,483	129,021
Median, 1940-44.....	276,985	75	16,252	3,175	24,281	7,538	749	130,417	20,971	452,101	58,917	612,068	3,758	198,264	1,627	6,051	141,919
Alaska.....	301		40		6	18		15		656		110	4	53			55
Hawaii Territory.....	1,171	52	31	84	266		1	284	241	9,945	210	3,768	34	508			1,111
Panama Canal Zone.....	1,156		114		43					775		59	7	54			420

See footnotes on page 425.

Consolidated monthly State morbidity reports for the year 1945—Continued

Division and State	*Polio-myelitis	Rabies in man	Rheumatic fever	Rocky Mountain spotted fever	*Scarlet fever	Septic sore throat	*Smallpox	Tetanus	Trichinosis	*Tuberculosis, all forms	Tuberculosis, respiratory	Typhoid and typhoid fever	Paratyphoid fever	Typhus fever, endemic	*Undulant fever	Vincent's infection	*Whooping cough
NEW ENGLAND																	
Maine.....	75				1,807	16		4	6	510	474	1	34	5	47	24	2,159
New Hampshire.....	30				885	48	1	1		136					9	8	1,490
Vermont.....	59				510	47				36					76	75	1,470
Massachusetts.....	538				10,387	186	12	1	29	2,807	2,742		144	125	60		7,444
Rhode Island.....	9		186		864	27			1	599	708		15	8	21	4	7,665
Connecticut.....	217			1	2,144	353	5		13	1,284	1,241		36	3	125		2,420
MIDDLE ATLANTIC																	
New York.....	1,812	1		17	19,870	106	24		121	12,917	12,042	4	225	46	279		13,477
New Jersey.....	949			15	4,261		8		27	3,379		2	92	16	6		7,251
Pennsylvania.....	743	1	916		16,084		5		2	3,749		7	368	2	127		9,179
EAST NORTH CENTRAL																	
Ohio.....	466	2	34	3	12,797	61	8	12	6	5,789	5,622	12	169	24	79	17	7,742
Indiana.....	203	2	4	16	4,276	76	60	16	11	3,050	2,882	11	84	2	88	189	1,064
Illinois.....	1,098	3	243	18	10,547	224	13	29	49	6,148	5,454	114	113	23	325	178	4,108
Michigan.....	1,218		344		9,384	407	16	21	1	5,466		4	132	71	250		5,840
Wisconsin.....	607				6,843	208	12		3	2,527		10	17		283		3,347
WEST NORTH CENTRAL																	
Minnesota.....	243		44		3,028	319	3	6		1,378		9	20	3	312	87	842
Iowa.....	320		8	2	2,228	20	10		3	774	10,509		40	1	482	55	275
Missouri.....	297	1	80	5	3,052	613	12	194		2,111		33	81		55	929	929
North Dakota.....	15		15		807	20	1	1	15	201	191		21	1	13	60	96
South Dakota.....	20			1	553	5	6	6	34	318			12	1	4	4	151
Nebraska.....	120				2,467		11			449			5		44	6	162
Kansas.....	132	1	5	4	3,524	33	17	6	4	661	620	17	31		209	117	1,475
SOUTH ATLANTIC																	
Delaware.....	31			3	291			2		196	185		18		1		105
Maryland.....	107		164	38	5,054	166		6	4	3,181	3,067	16	43	5	13	44	2,629
District of Columbia.....	141			2	1,386					1,777	1,649	1	25	2	1	2	410
Virginia.....	338			93	4,118	2,376	1	17		3,072	3,072	50	171	12	33		2,933
West Virginia.....	66			12	646	19				896			86	2	12		1,175
North Carolina.....	160	2		59	3,244	101	1		1	3,396	3,299	27	92	5	160	15	5,884
South Carolina.....	180	1	514	6	491	41	2	4		3,776		12	132	24	216	25	3,584
Georgia.....	123	3	216	19	1,189	212	10	18		1,685	1,685	58	235	69	1,110	165	3,867
Florida.....	144				328	47	30		7	1,105	1,005	8	138	32	380	27	480

EAST SOUTH CENTRAL																
Kentucky.....	67	1	18	2,292	35	5	19	2,330	2,281	80	189	4	1	20	6	1,924
Tennessee.....	439	17	17	2,335	202	8	30	3,899	3,899	69	298	8	75	45	207	1,272
Alabama.....	153	1	9	929	---	5	36	2,690	1,592	15	146	17	601	104	---	1,073
Mississippi.....	80	---	---	1,047	---	25	56	1,622	---	59	101	---	235	100	---	7,232
WEST SOUTH CENTRAL																
Arkansas.....	63	1	3	855	981	31	6	1,182	918	102	143	4	24	51	---	666
Louisiana.....	129	3	333	732	920	8	58	2,424	2,310	22	176	13	417	77	---	296
Oklahoma.....	197	---	24	986	181	11	8	2,127	---	16	92	8	1	37	15	677
Texas.....	995	1	---	4,605	1,562	9	159	6,708	---	20	578	71	1,833	616	---	10,308
MOUNTAIN																
Montana.....	81	---	2	690	141	4	1	398	163	9	52	14	---	9	35	341
Idaho.....	24	---	31	1,178	196	13	1	289	18106	2	30	---	280	24	82	383
Wyoming.....	146	---	14	1,472	60	2	---	47	---	14	9	2	---	4	3	172
Colorado.....	223	---	223	2,231	262	4	---	660	---	1	58	7	660	63	174	1,872
New Mexico.....	24	---	1	644	16	4	10	2,809	2,765	2	92	5	---	6	---	1,874
Arizona.....	24	---	6	684	16	4	219	1,298	---	---	44	1	---	13	---	646
Utah.....	253	---	8	1,252	11	3	---	1,298	146	27	19	6	---	99	---	1,182
Nevada.....	11	---	4	133	57	4	12	130	---	4	4	---	---	3	42	59
PACIFIC																
Washington.....	327	---	231	2,863	175	8	1	2,648	---	3	59	18	---	54	259	1,350
Oregon.....	69	---	3	1,286	105	6	2	695	14,252	---	40	4	---	153	---	1,771
California.....	938	1	971	14,496	---	7	69	11,462	10,906	9	190	52	66	270	---	13,832
Total.....	13,514	26	4,781	452,174,128	10,112	346	439	1,115,289	87,786	866	4,837	716	5,180	4,969	1,935	132,814
Year 1944.....	19,053	52	2,454	448,191,220	7,356	334	408	357,126,348	70,462	733	5,868	741	105,353	4,286	2,614	109,285
Median, 1940-44.....	9,781	31	---	142,274	7,787	864	412	357,106,372	63,664	900	6,602	---	3,725	3,408	2,167	191,112
Alaska.....	15	---	13	7	23	---	---	410	308	1	4	---	---	3	---	29
Hawaii Territory.....	7	---	---	140	75	16	4	914	825	---	25	18	104	8	---	3
Panama Canal Zone.....	7	---	---	4	---	---	---	55	50	---	36	28	1	---	---	30

* Diseases marked with an asterisk (*) are reportable by law or regulation in all the States, including the District of Columbia. Typhoid fever is reportable in all the States; paratyphoid fever in all except 6 States. Syphilis is reportable in all the States and the District of Columbia but is not included in the table. Chickenpox, gonorrhea, influenza, and pellagra were dropped from the list of reportable diseases in North Carolina in 1945. Rheumatic fever has been made reportable in Louisiana.

1 Includes cases of kerato- and suppurative conjunctivitis and of pink eye.

2 In some States practically all in the military.

3 Lobar pneumonia only.

4 New York City only.

See notes on page 426.

5 For 4 months only.

6 Exclusive of prisoners of war.

7 Includes the cities of Colon and Panama.

8 In the Canal Zone only.

9 Includes nonresidents.

10 For 7 months only.

11 Tsutsugamushi fever.

12 Includes 194 cases reported from U. S. naval hospital at Dublin, Ga.

13 For 3 months only.

14 For 6 months only.

15 Includes 1 case of tsutsugamushi fever.

The following list includes certain rare conditions, diseases of restricted geographical distribution, and those reportable in or reported by only a few States; last year's figures in parentheses.

Actinomycosis: New Hampshire 1, Massachusetts 2 (1), Connecticut, 3 (1), Pennsylvania (1), Illinois (1), Michigan 5 (9), Minnesota 11 (25), Iowa 1 (1), Missouri (1), South Dakota (3), Kansas 3 (2), Maryland (1), Tennessee (1), Montana 1 (1), Washington 1, New York 1 (4), Illinois 1 (1), Arizona 4, Utah 7, Nevada (2), Washington (6), California 25 (6).

Coccidioidomycosis: Kansas (1), New Mexico 4 (1), Arizona 6 (43), California 39 (31), Dengué: West Virginia 1, South Carolina 19 (10), Georgia 2, Kentucky (2), Alabama (2), Mississippi 10 (2), Arkansas (1), Louisiana 62 (3), Texas 19 (41), Idaho 2, California 1, Hawaii Territory 13 (285).

Dermatitis: New Hampshire 23, Missouri 337, Kansas 1.

Diarrhea: Rhode Island (6), New Jersey 6 (55), Ohio 1,159 (937), (includes enteritis), Indiana 5 (3), Illinois 2 (6), Michigan 15 (55), Minnesota 68 (8), (includes enteritis), South Dakota 4, Maryland 136 (126), South Carolina 12,300 (10,235), Florida 42 (28), Montana 18, Wyoming (1), Colorado 6 (1), (includes enteritis), New Mexico 215 (253), (includes enteritis), Utah 27, Nevada (33), Washington 56 (133), Oregon 6 (includes enteritis), California 43 (48).

Dog bite: New Hampshire 1, Illinois 10,943 (11,164), Michigan 6,389 (7,743), Arkansas 469 (370).

Favus: Michigan (1).

Filariasis: New Jersey 2, Indiana 1 (1), Minnesota 2.

Food poisoning: Maine 7 (5), Ohio 1 (1), Indiana 9 (14), Illinois 105 (45), Minnesota 33, South Carolina 62, Louisiana 23 (12), Idaho 2, Colorado 51, New Mexico 1 (10), Nevada 6 (6), Washington 78 (3), California 483 (651).

Granuloma, unspecified: Ohio 73 (15).

Granuloma inguinale: Missouri 13 (44), Florida 244 (207), Tennessee 69 (33), Mississippi 618 (653), Louisiana 235 (100), Montana 2, Arizona 3 (10), Washington (47), Impetigo contagiosa: Ohio 5 (1), Indiana 51 (21), Illinois 75 (87), Michigan 1,224 (1,379), Iowa 8 (6), Missouri 14 (6), North Dakota 5 (32), South Dakota 6 (3), Kansas 55 (97), Maryland 38 (10), Oklahoma 6, Montana 56 (18), Idaho 20, Wyoming 25 (13), Colorado 50 (3), Nevada 121 (12), Washington 806 (174), Oregon 67 (351), Alaska 1 (12), Hawaii Territory 93 (135).

Jaundice (including hepatitis and Weil's disease): Maine 9, Massachusetts 2, New York 1, Ohio 1, Indiana 89 (13), Illinois 339 (34), Michigan 142, Minnesota 10 (2),

Iowa 15, Kansas 80 (4), Maryland 20 (8), South Carolina 140 (4), Florida 23 (35), Louisiana 6, Montana 7, Idaho 40 (3), Wyoming 2 (8), Arizona (4), Utah 26 (18), Nevada (1), Washington 84 (47), Oregon 20, California 343 (380), Alaska 22 (96), Hawaii Territory 219 (24).

Lead poisoning: New Hampshire 1, Minnesota (7), New Mexico 1 (1), Illinois 2 (1), Leprosy: Connecticut 1, New York 1 (3), New Jersey 1 (1), Ohio (1), Texas 5 (9), Wisconsin 3, Minnesota 1, Maryland (1), Florida (3), Louisiana 8 (9), Texas 5 (9), Colorado (1), Nevada (1), Washington 1, California 17 (9), Hawaii Territory 26 (27).

Lymphocytic choriomeningitis: Massachusetts 4, Illinois (2), Minnesota 2, Maryland 6, Tennessee 31 (3), Utah 1.

Lymphogranuloma venereum: Missouri 25 (51), Florida 183 (249), Tennessee 87 (72), Louisiana 170 (165), Arizona 2 (27), Utah 6 (3), Nevada (4).

Plague (human): California (1), laboratory infection, Hawaii Territory 1 (5).

Psittacosis: New York 4, Pennsylvania 5 (2), Ohio 1, Illinois 2, North Dakota 1, Delaware 1, Maryland (1), Virginia 1, Utah (1), Washington (1), California 3 (1), Puerperal septicemia: Ohio (1), Georgia (2), Florida 1 (2), Tennessee 2 (4), Mississippi 181 (244), Arkansas 5, Louisiana 36 (2), New Mexico 1 (6), Nevada 1 (4), Oregon 1.

Rabies in animals: Maine (1), Massachusetts (1), Rhode Island 1 (1), New York 576 (300), Ohio 785 (400), Illinois 421 (366), Michigan 35 (84), Minnesota (2), Iowa 69 (64), Missouri 35 (34), Kansas 15 (29), Delaware (1), Maryland 38 (73), District of Columbia 109 (148), South Carolina 131 (171), Florida 7 (8), Alabama 600 (191), Arkansas 184 (202), Louisiana 106 (134), Texas 838 (237), Colorado (1), New Mexico 10 (34), Utah 22 (16), Washington (1), Oregon (1), California 581 (908), Alaska 1.

Rat bite fever: Kansas 1 (3), South Carolina 1, Tennessee 1, Louisiana 5, Oklahoma 1.

Relapsing fever: Pennsylvania 1, Kansas 2 (1), Texas 18 (19), New Mexico (1), Arizona (2), Nevada 16 (3), California 5 (8), Panama Canal Zone (1).

Ringworm: New Hampshire (1), Pennsylvania 991 (227), Ohio 4, Indiana 9, Illinois 1,399, Michigan 2,055 (2,777), Minnesota 691, Iowa 8, Missouri 112, Kansas 23, Maryland (1), Montana 1 (3), Idaho 9, Nevada 13, Washington 485 (161).

Scabies: New Hampshire (3), Pennsylvania 114, Ohio 1 (2), Indiana 4 (10), Michigan 93 (85), Delaware 1, Maryland 28 (1), North Dakota 27 (103), South Dakota 7, Kansas Wyoming 7 (41), Nevada 83, Oregon 62 (637), Alaska 1 (2).

Silicosis: Ohio 1 (3), Indiana 2 (14), Missouri 1, Kansas 1, Montana (3), Idaho 3 (2), New Mexico 6 (1), Utah 5 (2), Washington 1.

WEEKLY REPORTS FROM CITIES

City reports for week ended Feb. 23, 1946

This table lists the reports from 85 cities of more than 10,000 population distributed throughout the United States, and represents a cross section of the current urban incidence of the diseases included in the table.

	Diphtheria cases	Enecephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Pollomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
NEW ENGLAND												
Maine:												
Portland	0	0	0	0	1	4	0	8	0	0	0	3
New Hampshire:												
Concord	0	0	0	0	0	1	0	1	0	0	0	0
Vermont:												
Barre	0	0	0	0	0	0	0	0	0	0	0	0
Massachusetts:												
Boston	2	0	1	62	1	8	0	37	0	0	0	12
Fall River	0	0	0	1	0	0	0	2	0	0	0	4
Springfield	1	0	0	1	0	1	0	12	0	0	0	1
Worcester	0	0	0	16	0	13	0	5	0	0	0	9
Rhode Island:												
Providence	0	0	1	1	4	0	5	0	1	0	0	18
Connecticut:												
Bridgeport	0	0	0	1	0	0	0	4	0	0	0	1
Hartford	0	0	0	2	0	1	0	7	0	0	0	2
New Haven	0	0	0	16	1	1	0	4	0	0	0	0
MIDDLE ATLANTIC												
New York:												
Buffalo	3	0	1	41	1	1	0	4	0	0	0	20
New York	13	2	14	2	505	11	80	1	206	0	0	46
Rochester	0	0	0	109	2	4	0	15	0	0	0	2
Syracuse	0	0	0	537	1	0	0	6	0	0	0	1
New Jersey:												
Camden	1	0	1	44	0	4	0	2	0	0	0	1
Newark	0	0	3	242	0	7	0	17	0	0	0	20
Trenton	0	0	2	1	0	3	0	6	0	0	0	2
Pennsylvania:												
Philadelphia	3	0	5	1	577	2	21	0	46	0	0	15
Pittsburgh	1	0	2	2	3	8	0	5	0	0	0	5
Reading	0	0	0	95	0	6	0	1	0	0	0	13
EAST NORTH CENTRAL												
Ohio:												
Cincinnati	1	0	2	101	0	8	0	9	0	0	0	3
Cleveland	2	0	1	11	0	10	0	36	0	0	0	11
Columbus	5	0	2	4	0	3	0	6	0	0	0	0
Indiana:												
Fort Wayne	0	0	0	0	0	3	0	2	0	0	0	0
Indianapolis	2	0	0	312	1	7	0	22	0	0	0	5
South Bend	0	0	0	0	0	0	0	4	0	0	0	0
Terre Haute	0	0	0	0	1	2	0	2	0	0	0	0
Illinois:												
Chicago	4	0	3	1,107	9	30	0	81	0	0	0	54
Michigan:												
Detroit	3	0	1	1,446	4	24	0	52	0	0	0	44
Flint	0	0	0	12	1	3	0	7	0	0	0	2
Grand Rapids	0	0	0	76	0	0	0	1	0	0	0	10
Wisconsin:												
Kenosha	0	0	0	13	0	0	0	5	0	0	0	0
Milwaukee	0	0	0	219	0	2	0	29	0	0	0	25
Racine	0	0	0	2	0	0	0	0	0	0	0	1
Superior	0	0	0	1	0	0	0	2	0	0	0	3
WEST NORTH CENTRAL												
Minnesota:												
Duluth	0	0	0	4	0	0	0	1	0	0	0	6
Minneapolis	1	0	0	3	0	5	0	7	0	0	0	1
St. Paul	3	0	0	2	0	6	0	15	0	0	0	3
Missouri:												
Kansas City	3	0	3	0	0	6	0	14	0	0	0	0
St. Joseph	0	0	0	24	0	0	0	0	0	0	0	0
St. Louis	2	0	2	2	44	6	9	14	0	0	0	2

City reports for week ended Feb. 23, 1946—Continued

	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Pollomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
WEST NORTH CENTRAL—continued												
North Dakota:												
Fargo.....	0	0		0		0	0	0	0	0	0	
Kansas:												
Topeka.....	0	0		0	261	0	0	0	8	0	0	2
Wichita.....	0	0		0	63	0	3	0	2	0	0	3
SOUTH ATLANTIC												
Delaware:												
Wilmington.....	0	0		0	5	0	2	0	1	0	0	
Maryland:												
Baltimore.....	13	0	5	1	156	2	16	0	45	0	0	15
Cumberland.....	0	0		0		0	0	0	8	0	0	
Frederick.....	0	0		0		0	1	0	0	0	0	
District of Columbia:												
Washington.....	1	0		0	42	0	9	0	26	0	0	5
Virginia:												
Lynchburg.....	0	0		0	3	0	0	0	0	0	0	
Richmond.....	0	0	15	1	15	0	3	0	9	0	2	1
Roanoke.....	0	0		0		0	0	0	1	0	0	
West Virginia:												
Wheeling.....	0	0		0	1	0	0	0	0	0	0	4
North Carolina:												
Raleigh.....	0	0		0	14	1	3	0	0	0	0	4
Wilmington.....	0	0		0	4	0	1	0	1	0	0	1
Winston-Salem.....	0	0		0	1	1	3	0	2	0	0	11
South Carolina:												
Charleston.....	1	0	20	0	16	0	1	0	3	0	0	
Georgia:												
Atlanta.....	0	0	2	0	1	0	5	0	4	0	0	
Brunswick.....	0	0		0		0	0	0	0	0	0	
Savannah.....	0	0	4	0	2	0	1	1	0	0	0	
Florida:												
Tampa.....	1	0		0	45	2	1	1	2	0	0	9
EAST SOUTH CENTRAL												
Tennessee:												
Memphis.....	0	0	8	1	32	3	11	0	6	0	0	5
Nashville.....	0	0		0	17	0	7	1	3	0	0	1
Alabama:												
Birmingham.....	1	0	13	0	3	1	6	0	3	0	0	1
Mobile.....	1	0	26	2		7	4	0	0	0	0	
WEST SOUTH CENTRAL												
Arkansas:												
Little Rock.....	1	0		0	4	0	1	1	2	0	0	
Louisiana:												
New Orleans.....	2	0	5	1	3	1	14	0	2	0	0	3
Shreveport.....	0	0		1		0	12	1	2	0	0	
Texas:												
Dallas.....	0	1	1	1	1	1	4	0	7	0	1	
Galveston.....	1	0		1	9	0	3	0	0	0	0	1
Houston.....	2	0		2	4	0	8	0	1	0	1	
San Antonio.....	4	0	13	2	10	0	10	0	0	0	0	3
MOUNTAIN												
Montana:												
Billings.....	0	0		0		0	1	0	0	0	0	1
Great Falls.....	1	0		0	1	0	0	0	0	0	0	
Missoula.....	0	0		0	45	0	1	0	0	0	0	1
Idaho:												
Boise.....	0	0		0	6	0	1	0	0	0	0	
Colorado:												
Denver.....	1	0	6	1	49	2	13	0	10	0	0	10
Pueblo.....	0	0		0	1	0	2	0	5	0	1	2
Utah:												
Salt Lake City.....	0	0		0	6	0	4	0	3	0	0	3

City reports for week ended Feb. 23, 1946—Continued

	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Pollomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
PACIFIC												
Washington:												
Seattle.....	1	0	0	0	152	0	3	0	10	0	0	11
Spokane.....	0	0	0	0	41	0	4	0	6	0	0	3
Tacoma.....	0	0	0	0	41	0	0	0	1	0	0	4
California:												
Los Angeles.....	4	0	37	5	112	1	8	0	46	0	0	7
San Francisco.....	2	0	5	1	162	1	6	1	17	0	0	8
Total.....	87	3	200	37	6,965	68	458	7	934	0	5	464
Corresponding week, 1945.....	73	78	27	27	594	-----	303	-----	1,669	0	13	578
Average, 1941-45.....	64	-----	454	146	24,566	-----	1,504	-----	1,616	0	12	822

¹ 3-year average, 1943-45.² 5-year median, 1941-45.*Anthrax*.—Cases: Philadelphia, 1.*Dysentery, amebic*.—Cases: New York, 5; St. Louis, 1; Atlanta, 1; Spokane, 1; San Francisco, 1.*Dysentery, bacillary*.—Cases: Chicago, 1; Detroit, 1; Roanoke, 1.*Dysentery, unspecified*.—Cases: Memphis, 1; San Antonio, 10.*Leprosy*.—Case: Galveston, 1.*Typhoid fever, endemic*.—Case: New Orleans, 1.*Typhoid fever, endemic*.—Cases: St. Louis, 1; New Orleans, 2; Dallas, 1; Houston, 1.

Rates (annual basis) per 100,000 population, by geographic groups, for the 85 cities in the preceding table (estimated population, 1943, 33,901,000)

	Diphtheria case rates	Encephalitis, infectious, case rates	Influenza		Measles case rates	Meningitis, meningococcus, case rates	Pneumonia death rates	Pollomyelitis case rates	Scarlet fever case rates	Smallpox case rates	Typhoid and paratyphoid fever case rates	Whooping cough case rates
			Case rates	Death rates								
New England.....	7.8	0.0	2.6	5.2	269	7.8	88.9	0.0	212	0.0	0.0	131
Middle Atlantic.....	9.7	0.9	12.5	3.2	997	9.3	62.0	0.5	143	0.0	0.0	58
East North Central.....	10.4	0.0	4.3	3.7	2,026	9.2	56.4	0.0	158	0.0	0.0	97
West North Central.....	19.5	0.0	10.8	4.3	869	13.0	62.8	0.0	132	0.0	0.0	37
South Atlantic.....	26.8	0.0	77.0	3.3	511	10.0	77.0	3.3	171	0.0	3.3	84
East South Central.....	11.8	0.0	277.4	17.7	307	64.9	165.3	5.9	71	0.0	0.0	41
West South Central.....	28.7	2.9	54.5	23.0	89	5.7	149.2	5.7	40	0.0	5.7	20
Mountain.....	16.2	0.0	48.5	8.1	874	16.2	178.0	0.0	146	0.0	8.1	138
Pacific.....	11.5	0.0	68.9	9.8	833	3.3	34.4	1.6	131	0.0	0.0	54
Total.....	13.4	0.5	30.8	5.7	1,074	10.5	70.6	1.1	144	0.0	0.8	72

FOREIGN REPORTS

CANADA

Provinces—Communicable diseases—February 2, 1946.—During the week ended February 2, 1946, cases of certain communicable diseases were reported by Dominion Bureau of Statistics of Canada as follows:

Disease	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Chickenpox		8		65	342	23	23	36	79	581
Diphtheria		6	6	45	6	4	1		1	69
Dysentery, unspecified					2					2
Encephalitis, infectious					1					1
German measles				15	58	1		3	13	90
Influenza		1,744			167				109	2,020
Measles	3	18	9	366	1,567	7	1	8	58	2,037
Meningitis, meningococcus				3	2					5
Mumps			4	36	174	38	10	71	105	438
Scarlet fever		11	9	45	74	6	4	16	20	185
Smallpox							2			2
Tuberculosis (all forms)		3	4	89	49	5		33	22	205
Typhoid and paratyphoid fever				4	3					9
Undulant fever				1					2	1
Veneral diseases:										
Gonorrhoea		18	7	97	198	42	57	51	93	563
Syphilis	1	22	6	126	184	9	17	9	36	410
Whooping cough		10		62	29	7				108

REPORTS OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER RECEIVED DURING THE CURRENT WEEK

NOTE.—Except in cases of unusual incidence, only those places are included which had not previously reported any of the above-mentioned diseases, except yellow fever, during recent months. All reports of yellow fever are published currently.

A table showing the accumulated figures for these diseases for the year to date is published in the PUBLIC HEALTH REPORTS for the last Friday in each month.

Plague

Algeria—Oran.—For the week ended March 2, 1946, 1 fatal case of plague was reported in the port of Oran, Algeria.

Egypt—Suez.—For the week ended January 12, 1946, 3 fatal cases of plague were reported in Suez, Egypt. All necessary precautions are stated to have been taken.

Smallpox

British East Africa.—Smallpox has been reported in British East Africa as follows: Kenya—week ended February 9, 1946, 124 cases, 8 deaths; Tanganyika—week ended January 26, 1946, 83 cases, 31 deaths.

Dahomey.—For the period February 11–20, 1946, 191 cases of smallpox were reported in Dahomey.

Indochina (French)—Laos State.—For the week ended February 19, 1946, 9 cases of smallpox with 1 death were reported in Laos State, French Indochina.

Morocco (French).—For the period February 11–20, 1946, 144 cases of smallpox were reported in French Morocco, including cases reported by regions as follows: Agadir and Frontier districts, 16; Casablanca, 35; Fez, 6; Marrakech, 65; Meknes, 13; Oujda, 3; Rabat, 6.

Sudan (French).—For the period February 11–20, 1946, 109 cases of smallpox were reported in French Sudan.

Typhus Fever

Belgian Congo.—For the week ended February 9, 1946, 112 cases of typhus fever were reported in Belgian Congo.

Egypt.—For the week ended January 26, 1946, 52 cases of typhus fever were reported in all of Egypt.

Morocco (French).—For the period February 11–20, 1946, 198 cases of typhus fever were reported in French Morocco, including cases reported by regions as follows: Agadir and Frontier districts, 11, Casablanca, 68, Marrakech, 29, Meknes, 28, Fez, 30, Oujda, 1, Rabat, 31.

Turkey.—For the week ended February 23, 1946, 83 cases of typhus fever were reported in Turkey, including cases reported in ports as follows: Antalya, 1, Amir, 1, Balikesir, 1, Icel, 1, Istanbul, 8, Kocaeli, 1, Samsun, 1, Sinop, 1.

Yellow Fever

French Equatorial Africa—Chad Territory—Logone Department—Moundou.—The case of suspected yellow fever in Moundou, Logone Department, Chad Territory, French Equatorial Africa published on page 371 of the PUBLIC HEALTH REPORTS of March 8, 1946, has not been confirmed.